

NEW HORIZONS FOR DATA SYSTEMS

Documents -

Digital Recordings -

Other Media -

25 YEAR RE-REVIEW

GRC Management Systems Corp.
1901 N. Ft. Myer Drive
Arlington, Virginia 22209
(703) 525-5234

Over one-half of the DATA in use in GOVERNMENT

As many MANAGERS KNOW: THERE IS A

What problem?

A technology gap has developed between data in process by computers and the broad base of data needed to perform government or business transactions.

Why has this problem arisen?

Because computer systems do not provide for an adequate record to be retained in machine usable format

Neither input nor output documents can serve as viable parts in the processing activities of computer systems, until and unless converted to machine readable, inexpensive formats.

What is needed?

The **DATA BASE** must be served by and incorporated into the computer systems.

For a Schematic Illustration of the DATA

and INDUSTRY is now processed by COMPUTER

GROWING OFTEN-UNRECOGNIZED-PROBLEM

How can this be done?

New systems concepts must be applied which can develop a DATA BASE that is:

- Complete record in machine readable format
- Maintained and retrieved easily and quickly
- Created inexpensively

[Note that paper records in a DATA BASE are inexpensive carbon copies or are received as input from somewhere else after being produced at another's expense]

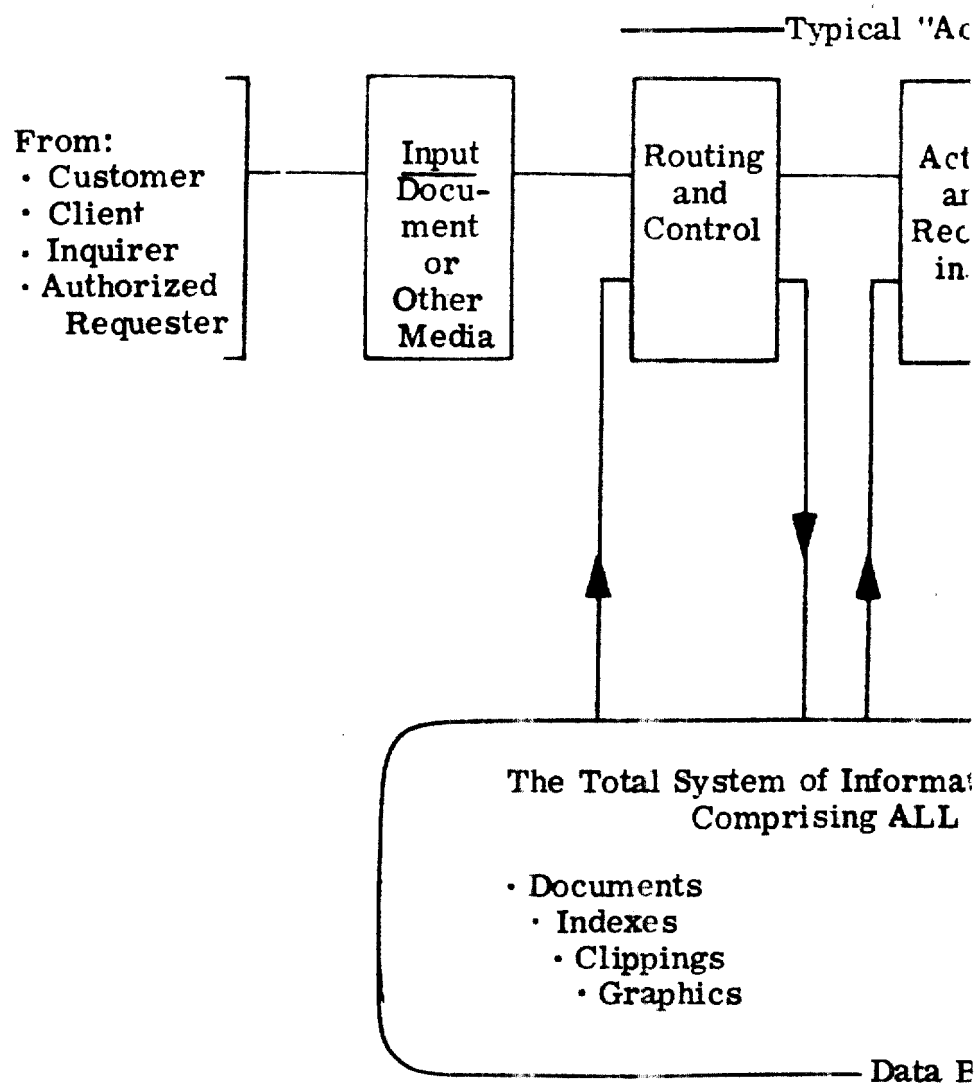
What is a DATA BASE, and HOW is it used?

A DATA BASE is the sum total of information kept on file to support action. It is used at all stages of action. Some additions are made during most stages but the essential addition is made at the completion of a phase of action. These truths have been ignored by most computer systems.

BASE and how it relates to the ACTION process

SEE NEXT PAGE

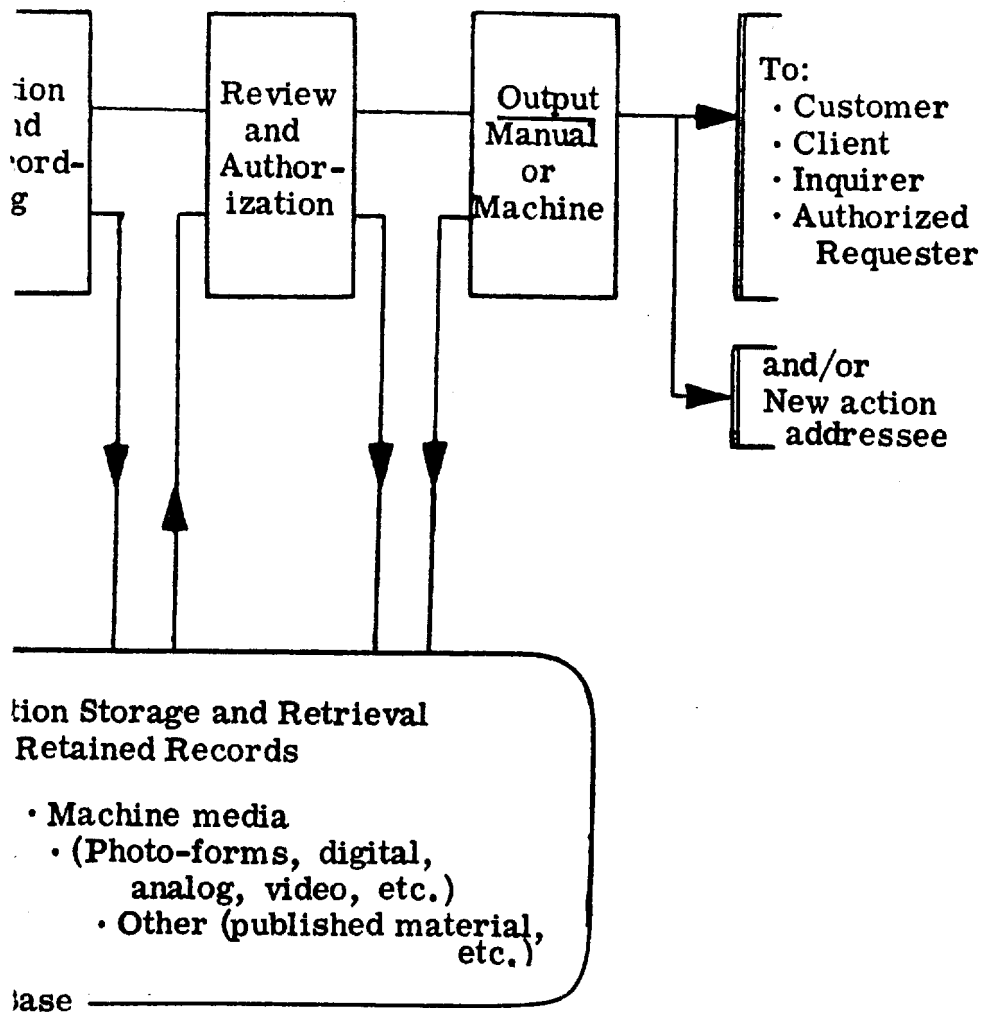
Schematic Illustration
in Relation to Typical



ation of DATA BASE

"ACTION" Processes

tion" Process



**ALTHOUGH the DATA BASE must be
MASSIVE (Complete) and Inexpensive —**

IMPORTANCE

One national study on fires reported that most business firms that lost their records (DATA BASE) did not successfully reopen. Most business firms that lost other assets but saved their records did successfully reopen —

Failures in use of the DATA BASE cause most of the complaints about businesses and government —

Long-term legal and historical uses require a DATA BASE —

WHAT SPECIFIC STEPS CAN BE TAKEN:

There are three —

1. Develop responsive systems which provide a complete, viable machine readable and workable DATA BASE
2. Utilize inexpensive recording media
3. Provide for high compaction for rapid retrieval and instantaneous reading

IT IS ESSENTIAL!!

**WHY NOT CREATE AND USE DATA BASES
WHICH CAN BE USED BY MACHINES?**

- * Technology is now available
- * Methodology can be effective
- * Expertise exists
- * The gap between computers and the general records can be closed

NEW TECHNOLOGY FOR DATA BASE

1. Only 5 laser recorded 4 x 6 cards (digital) will hold data contained in 1 reel of mag tape (also equal to 1 file cabinet of paper)
2. Mean retrieval/read time of one laser recorded card is less than 3 seconds
3. Many possibilities for flexible innovative systems

THE G R C APPROACH

Supervision And Control

Each study is under the supervision and responsibility of an officer of the firm.

Cooperation With The Client

G R C works closely with the client's designated personnel.

Method Of Analysis

Depending on the nature of the study, the approach will vary. However, the method of analysis is usually as follows:

DETERMINE objectives and requirements.

REVIEW present operations, procedures and systems.

DEVELOP alternative methods to meet the objectives and requirements of the study.

EVALUATE the alternatives.

RECOMMEND a solution.

PROVIDE assistance in the implementation of the recommendations.

FOLLOW-UP on performance after implementation

NAME:

CHESTER L. GUTHRIE

PRESENT POSITION:

President

PREVIOUS BUSINESS AFFILIATIONS:

Under several titles, directed the General Services Administration's program of management surveys and government-wide assistance to Federal agencies. Also directed systems research programs relating to laser and other micro-recording techniques and data input and retrieval methods, 1950-1969.

Organized and directed Medical Administration for the Pan American Health Organization, 1949-1950.

Director, Medical Administration, Branch and Area Medical Services, HQ at San Francisco (12 hospitals, 6 clinics), Veterans Administration, 1946-1950.

Officer-in-Charge, Administrative Division, Bureau of Medicine and Surgery, U.S. Navy, 1943-1946.

PROFESSIONAL EDUCATION:

Fresno State College, A.B., 1932 - Economics and History
University of California, M.A., 1933; Ph.D., 1937 - Economics and Latin American History

PROFESSIONAL AFFILIATIONS:

Society for Advancement of Management (past President of Washington Chapter and holder of other national and international posts)
American Society for Public Administration
Society of American Archivists (Fellow)
Propeller Club, Port of Washington

PROFESSIONAL ACTIVITIES:

Author, "How Automation is Likely to Affect the Small Office" in Conference Proceedings, American Society for Public Administration, 1963.

Chester L. Guthrie
Page 2

Author, "Squeezing the Waste Out of Paperwork", in Office Administration, September, 1962.

Author, "New Data to Shape History", in The American Archivist, April, 1967.

Author, "Deciding from the Facts", in Advanced Management Journal, October, 1967.

Author, "Informing the Nation's President", in Advanced Management Journal, January, 1969.

Author, other publications including articles on trade, industry and economy of Colonial Mexico City, articles on Mexico and the Caribbean in the Encyclopedia Britannica Yearbook, articles on microfilming, office equipment and other related managerial subjects.

PROFESSIONAL EXPERIENCE:

Dr. Guthrie has directed and participated in over 500 management studies undertaken by the General Services Administration at the request of federal agencies. Studies concerned problems of personnel, office management, electronic data processing, office systems, top and middle management organization, work flow and procedures, information for management decision, information for operational activities, communication concepts and systems, economic reviews, printing, transportation, motor fleets, data input and retrieval systems, hospital administration and control systems, case and project control and processing systems, EDP management and utilization programs, scheduling and production standards, and general simplification and reduction of paperwork.

Has served as chairman or vice-chairman of Government-wide committees such as the Task Force for establishing federal agency identifier codes, Subcommittee on Training of ADP Systems Analysts, Water Transportation Facilitation Committee (ocean shipping regulations and paperwork), Subcommittee on Micromedia Recording, Task Force on Effects of Automation on the Federal Workforce. He has also served as a member of a number of other inter-governmental committees and commissions such as the Second Hoover Commission, Travel Document Security Committee, and others.

Chester L. Guthrie
Page 3

Has directed projects relating to marine and other forms of transportation, coding and control of technical data, processing and control of passports and visas, building construction, real estate titles, publication controls, warehousing, and many other specialized governmental and non-governmental activities.

Helped to develop and install new admission and ward administration procedures in Veterans Hospitals.

Organized the medical statistical program of the Bureau of Medicine and Surgery, U. S. Navy.

Established new financing and budgetary program for the Pan American Health Organization.

Has lectured and consulted widely in the United States and Latin America.

JUL 1970

NAME: PETER V. R. RAILEY

PRESENT POSITION: Vice President, Treasurer, Management Systems Analysis

PREVIOUS BUSINESS

AFFILIATIONS: Senior Management Systems Analyst, George G. Sharp, Inc., 1967-1968
Chief, Office of Data Systems, Maritime Administration, 1965-1967
Senior Management/Systems Analyst, Technical Assistance Division, General Services Administration, 1962-1965
Management Analyst, Army Map Service, 1961-1962

**PROFESSIONAL
EDUCATION:**

Wharton School of Finance, University of Pennsylvania, 1954-1955, 1958-1960
George Washington University, 1960-1963
IBM, RCA, Honeywell Data Processing Schools, 1961-1966

**PROFESSIONAL
AFFILIATIONS:**

System and Procedures Association

PROFESSIONAL

EXPERIENCE: At GRC, Mr. Railey is responsible for management and data systems analysis and development. He was responsible for development and maintenance of an International Transportation Data Base which is being maintained by GRC.

Mr. Railey directed the systems design phase of a total management information and cargo control system for a large holding company. This system was real-time utilizing IBM 360/65's and is capable of controlling 10 million shipments a year.

At the Maritime Administration Mr. Railey created and directed the activities of the Office of Data Systems reporting directly to the Maritime Administrator. This office was responsible for the analysis and design of new systems and the redesign of IBM-1401 card systems to a tape oriented computer. The major areas of effort were in vessel characteristics, foreign trade statistics, vessel movements, domestic trade, inventories, financial accounting, and payroll.

Mr. Railey has directed the activities of a survey team in the analysis of the statistical procedures and data processing capabilities of the Maritime Administration, performed analysis, design of new system, feasibility study, wrote computer specification, developed the benchmark problem and chaired the Evaluation Committee, which reviewed and selected bids selected by computer manufacturers. In conjunction with this study, Mr. Railey reviewed and analyzed bill of lading procedures and computer systems of various American and foreign operators on the East, Gulf, and Pacific Coasts.

Mr. Railey has also conducted systems studies in various government agencies. For the Securities Exchange Commission, he developed an automated information storage and retrieval system. This study required the analysis and redesign of every major procedure in the Commission. During the study a review of the procedures of Broker-Dealers was conducted and information flows were charted.

8 JUL 1970

NAME: BERNARD LONDNER

PRESENT POSITION: Senior Analyst

**PREVIOUS BUSINESS
AFFILIATIONS:**

As Lieutenant Colonel in the U. S. Army, served in managerial and staff capacities in many important assignments, including senior analyst for organization concept studies for Army unit operations: motor, rail, harborcraft, port/terminal, traffic management and movement. Also served as an Army transportation representative on Joint Chiefs of Staff. Has also served in a number of assignments in U. S. and overseas as Management Officer, Budget and Programs Officer, Personnel Manager, and R&D Project Officer.

**PROFESSIONAL
EDUCATION:**

College of William and Mary, AB, Major field, Business Administration. Advanced studies in management principle, logistics, transportation, finance, and general business activities.

**PROFESSIONAL
EXPERIENCE:**

Mr. Londner has directed and participated in hundreds of management studies during his military career. He has developed organizational concepts and equipment and skills required for transportation support to Army units. This included provisions for motor transport, rail, harborcraft, port/terminal, traffic management and movement control organizations.

Has been directly involved in the management of large-scale transportation, supply and personnel activities in Japan, Korea, Seattle and New York. In a staff capacity, has directed the activities of numerous management analysts involved in studies of organization, manpower, methods and procedures, records management and reporting systems.

Has supervised personnel operations for a force of 10,000 civilian employees.

Has developed and supervised program/budget activities for all Army transportation in Europe. Program approximated \$60,000,000 annually for rail and highway, storage operations, maintenance of equipment, port and terminal operations. Installed improvements and reduced fund requirements.

Bernard Londner

Page 2

Has worked extensively in transportation research and development programs, monitoring contractors and administering R&D resources. Has directed efforts of other research personnel in evaluating new transportation applications.

Has worked extensively on transportation planning in support of military operations. Developed transportation aspects of special studies, working both at Department of the Army and Joint Chiefs of Staff level, and at civilian institutions such as Research Analysis Corporation.

Has been a major participant in GRC Management Systems' development of a Uniform Records System for the Peace Corps, and has been engaged in installation of the system.